

Features

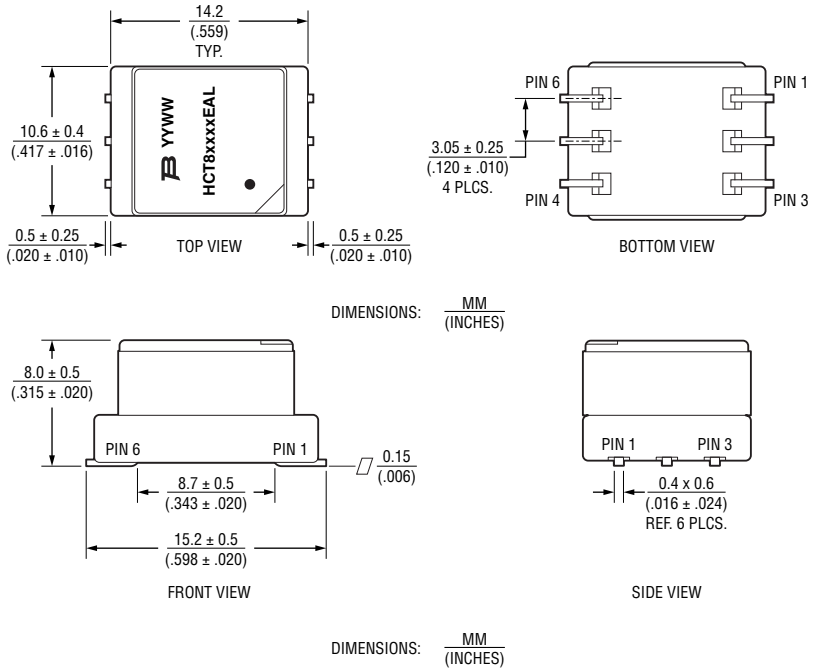
- Full automation and compact size for high voltage isolation
- Reinforced insulation for working voltage of 800 V
- Basic insulation for working voltage of 1000 V
- Creepage distance >8.0 mm
- Clearance distance >8.0 mm
- Overvoltage Category II, Pollution Degree 2, up to 2 km above sea level
- AEC-Q200 compliant
- RoHS* and REACH Compliant

HCT8 Series High Clearance and Creepage Transformer

Electrical Specifications @ 25 °C

Bourns Part Number	Turns Ratio P(1-3): S(6-4)	Primary Inductance 1-3 (µH min.)	Leakage Inductance @ 100 kHz, 0.1 V (all sec. pins shorted) 1-3 (µH max.)	RDC (Ω) @ 25 °C 1-3 (Ω max.)	RDC (Ω) @ 25 °C 6-4 (Ω max.)	Hi-Pot Voltage
HCT80101EAL	1:1	160	0.8	0.5	0.55	5.0k VDC 1 mA 60 s.
HCT80102EAL	1:2		0.6		1.5	
HCT80201EAL	2:1		1		0.35	
HCT80304EAL	3:4		0.6		0.7	
HCT80305EAL	3:5		0.6		1.5	
HCT80308EAL	3:8		0.7		3	
HCT80403EAL	4:3		0.8		0.45	
HCT80803EAL	8:3		1.2		0.3	
HCT80809EAL	8:9		0.7		0.65	
HCT80910EAL	9:10		0.7		0.6	
HCT81017EAL	10:17		0.6		1.5	

Product Dimensions



Additional Information

Click these links for more information:

PRODUCT | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

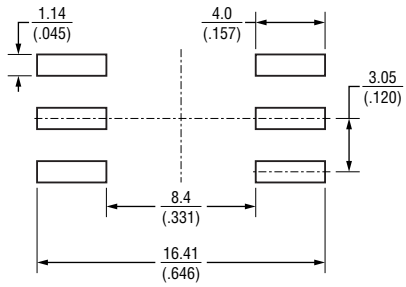
General Specifications

L (100 kHz / 1 V)
-40 °C ~ +125 °C ..... 160 µH
Volt Second on Half Primarys:
(1-2 or 2-3) ..... 14 Vµs min.
Rated Current ..... 350 mA
Hi-Pot (1 mA, 60 S) ..... 5000 VDC
Reinforced Insulation
for Working Voltage ..... 800 V
Basic Insulation
for Working Voltage ..... 1000 V
Operating Temperature
..... - 40 °C to +125 °C
(Temperature rise included)
Storage Temperature (Component)
..... -40 °C to +125 °C
Moisture Sensitivity Level 1

Materials

Core ..... Mn-Zn Ferrite
Wire ..... Enameled/full-insulated copper

Recommended Layout



WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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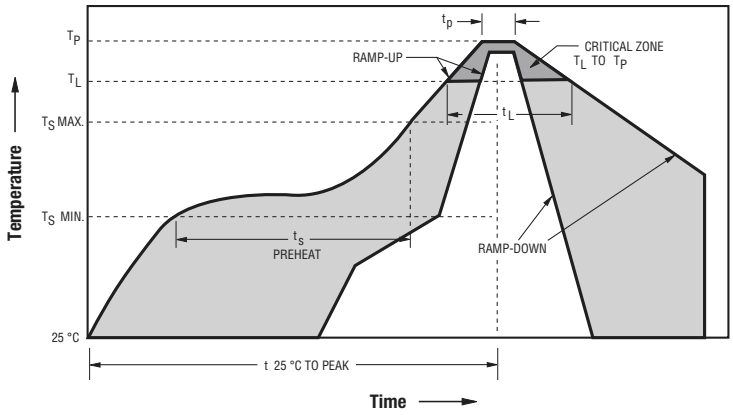
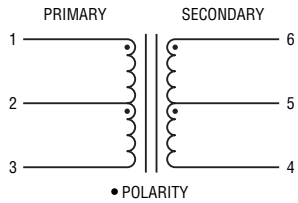
Reflow Solder Profile



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate	3 °C / second max.
PREHEAT: Temperature Min. (T_{smin}) Temperature Max. (T_{smax}) Time (T_{smin} to T_{smax})	 150 °C 200 °C 60~180 seconds
Liquidus Temperature (T_L)	217 °C
Time Above Liquidus Temperature (t_L)	60~150 seconds
Peak Temperature (T_p)	240-245 °C
Time within 5 °C of Actual Peak Temperature (t_p)	20~40 seconds
Ramp-Down Rate from Peak Temperature	6 °C / second max.
Time 25 °C to Peak Temperature (T_p)	8 minutes max.
Do Not Exceed	245 °C

Electrical Schematic



How To Order

HCT8xxxxE A L - E

Model
AEC-Q200 Compliancy Designator
RoHS Compliancy Designator
Packaging
E = 400 pcs. per 13-inch Reel

Packaging Specifications

Tape & Reel..... 400 pcs./13-inch reel

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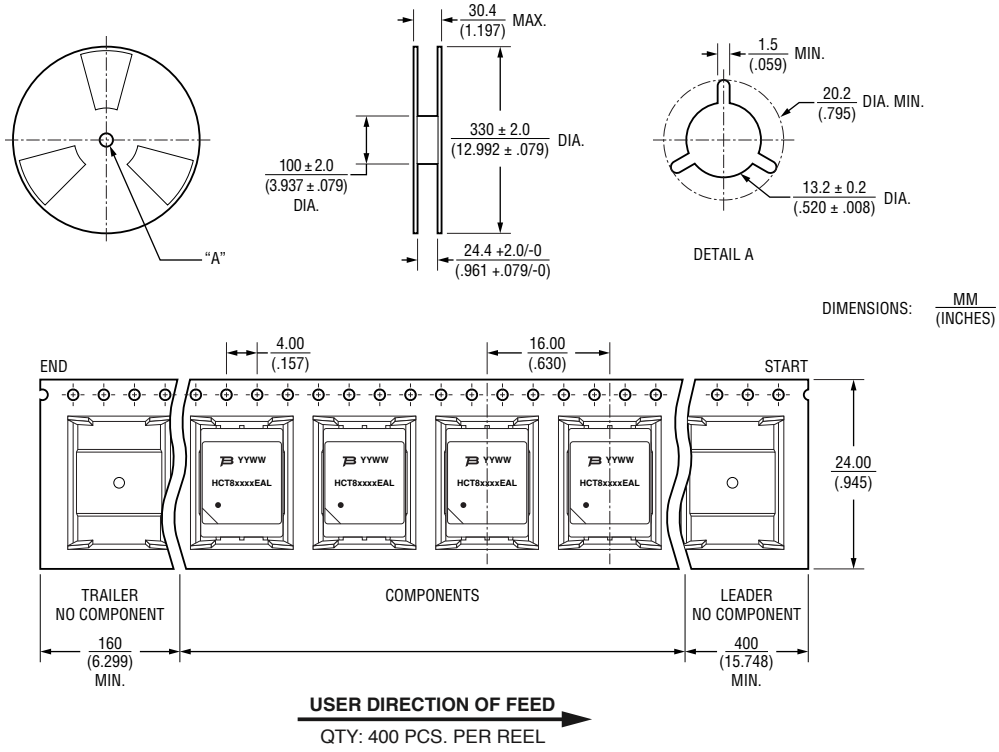
Packaging Specifications



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